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PATENT

Attorney Docket No.: A-70882/RMS/AMS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

ROSSI, Alexander B.

Serial No. 10/053,355

Filed: November 8, 2001

For: PRODUCTION OF CULTURED
HUMAN MAST CELLS AND
BASOPHILS FOR HIGH
THROUGHPUT SMALL
MOLECULE DRUG DISCOVERY

Examiner: UNKNOWN

Group Art Unit: UNKNOWN

CERTIFICATE OF MAILING

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Dated: 3-6-02

Signed: Marjorie Jost
Marjorie Jost

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying substitute for form PTO-1449. Copies of the references are enclosed herewith.

None of the foregoing references is believed to disclose the invention as claimed. Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present

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document shall not be construed as an admission that a search has been made or that better art does not exist.

As far as is known to the undersigned, this Information Disclosure Statement is being filed within three months of the filing date of a national application, within three months of the date of entry of the national state in an international application, or before the mailing date of a first Office Action on the merits as set forth in 37 C.F.R. § 1.97(b), and therefore no fee is required. Although no fee is currently believed to be due, the Commissioner is authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 06-1300 (Our Order No. A-70882/RMS/AMS).

Respectfully submitted,

FLEHR HOHBACH TEST
ALBRITTON & HERBERT LLP

Dated: March 6, 2002



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Sheet	1	of	3	Application Number	10/053,355
				Filing Date	November 8, 2001
				First Named Inventor	ROSSI, A.
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	A-70882/RMS/AMS

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

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Sheet	2	of	3	Attorney Docket Number	A-70882/RMS/AMS
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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C1	BINGHAM, C.O. 3rd and AUSTEN, K.F., "Mast-cell responses in the development of asthma," <i>J Allergy Clin Immunol.</i> 2000 Feb;105(2 Pt 2):S527-34	
	C2	BISCHOFF, S.C., et al., "Functional properties of human intestinal mast cells cultured in a new culture system: enhancement of IgE receptor-dependent mediator release and response to stem cell factor," <i>J Immunol.</i> 1997 Dec 1;159(11):5560-7	
	C3	DENBURG, J.A., "Basophil and mast cell lineages in vitro and in vivo," <i>Blood.</i> 1992 Feb 15;79(4):846-60	
	C4	DVORAK, A.M., "New aspects of mast cell biology," <i>Int Arch Allergy Immunol.</i> 1997 Sep;114(1):1-9	
	C5	GHANNADAN, M., et al., "Phenotypic characterization of human skin mast cells by combined staining with toluidine blue and CD antibodies," <i>J Invest Dermatol.</i> 1998 Oct;111(4):689-95	
	C6	GILMORE, G.L., et al., "Ex vivo expansion of human umbilical cord blood and peripheral blood CD34(+) hematopoietic stem cells," <i>Exp Hematol.</i> 2000 Nov;28(11):1297-305	
	C7	GORDON, J.R., et al., "Mast cells as a source of multifunctional cytokines," <i>Immunol Today.</i> 1990 Dec;11(12):458-64	
	C8	HACEIN-BEY, S., et al., "Optimization of retroviral gene transfer protocol to maintain the lymphoid potential of progenitor cells," <i>Hum Gene Ther.</i> 2001 Feb 10;12(3):291-301	
	C9	ISHIZAKA, T. et al., "Development of human mast cells from their progenitors." <i>Curr Opin Immunol.</i> 1993 Dec;5(6):937-43	
	C10	KEMPURAJ, D., et al., "Characterization of mast cell-committed progenitors present in human umbilical cord blood," <i>Blood.</i> 1999 May 15;93(10):3338-46	
	C11	KINOSHITA, T., et al., "Interleukin-6 directly modulates stem cell factor-dependent development of human mast cells derived from CD34(+) cord blood cells," <i>Blood.</i> 1999 Jul 15;94(2):496-508	
	C12	KIRSHENBAUM, A.S., et al., "Demonstration that human mast cells arise from a progenitor cell population that is CD34(+), c-kit(+), and expresses aminopeptidase N (CD13)," <i>Blood.</i> 1999 Oct 1;94(7):2333-42	
	C13	LAZZARI, L., et al., "Comparison of different serum-free media for ex vivo expansion of HPCs from cord blood using thrombopoietin, Flt-3 ligand, IL-6, and IL-11," <i>Transfusion.</i> 2001 May;41(5):718-9	
	C14	NAKAHATA, et al., "Synergy of stem cell factor and other cytokines in mast cell development," in <i>Biological and Molecular Aspects of Mast Cell and Basophil Differentiation and Function</i> , Kitamura et al. (eds.) Raven Press, Ltd.: New York, 1995, pp. 13-24	
	C15	OTTO, K.G., et al., "Cell proliferation through forced engagement of c-Kit and Flt-3," <i>Blood.</i> 2001 Jun 1;97(11):3662-4	
	C16	RAPPOLD, I. et al., "Functional and phenotypic characterization of cord blood and bone marrow subsets expressing FLT3 (CD135) receptor tyrosine kinase," <i>Blood.</i> 1997 Jul 1;90(1):111-25	
	C17	ROBINSON, S., et al., "Comparison of the hematopoietic activity of flt-3 ligand and granulocyte-macrophage colony-stimulating factor acting alone or in combination," <i>J Hematother Stem Cell Res.</i> 2000 Oct;9(5):711-20	

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				Group Art Unit	
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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	C18	SAITO, H., et al., "Characterization of cord-blood-derived human mast cells cultured in the presence of Steel factor and interleukin-6," <i>Int Arch Allergy Immunol.</i> 1995 May-Jun;107(1-3):63-5			
	C19	SAITO, H., et al., "Selective growth of human mast cells induced by Steel factor, IL-6, and prostaglandin E2 from cord blood mononuclear cells," <i>J Immunol.</i> 1996 Jul 1;157(1):343-50			
	C20	SUZUKI, H., et al., "Early and late events in Fc epsilon RI signal transduction in human cultured mast cells," <i>J Immunol.</i> 1997 Dec 15;159(12):5881-8			
	C21	TORU, H., et al., "Induction of the high-affinity IgE receptor (Fc epsilon RI) on human mast cells by IL-4," <i>Int Immunol.</i> 1996 Sep;8(9):1367-73			
	C22	VALENT, P. and BETTELHEIM, P., "Cell surface structures on human basophils and mast cells: biochemical and functional characterization," <i>Adv Immunol.</i> 1992;52:333-423			
	C23	WOGRUM, A.W., et al., "Stimulation of mouse bone marrow cells with kit ligand, FLT3 ligand, and thrombopoietin leads to efficient retrovirus-mediated gene transfer to stem cells, whereas interleukin 3 and interleukin 11 reduce transduction of short- and long-term repopulating cells," <i>Hum Gene Ther.</i> 2000 Oct 10;11(15):2129-41			
	C24	YAMAGUCHI, M., et al., "IgE enhances Fc epsilon receptor I expression and IgE-dependent release of histamine and lipid mediators from human umbilical cord blood-derived mast cells: synergistic effect of IL-4 and IgE on human mast cell Fc epsilon receptor I expression and mediator release," <i>J Immunol.</i> 1999 May 1;162(9):5455-65			
	C25	YANAGIDA, M., et al., "Effects of T-helper 2-type cytokines, interleukin-3 (IL-3), IL-4, IL-5, and IL-6 on the survival of cultured human mast cells," <i>Blood.</i> 1995 Nov 15;86(10):3705-14			
	C26	ZHANG, X., et al., "Influence of FL on ex vivo expansion of hematopoietic cells from cord blood in long-term liquid cultures," <i>Chin J Biotechnol.</i> 1999;15(3):189-94			

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